REMARKS

Applicants have now had an opportunity to carefully consider the Examiner's comments set forth in the Office Action of July 13, 2005.

Reconsideration of the Application is requested.

The Office Action

Claims 1-12, 16-23 stand rejected under 35 U.S.C. §103(a) as being unpatentable over (US Patent No. 5,898,823), and in view of Irie (US Patent No. 6,606,164).

Claims 13-15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Sorkin and Irie as described in relation to claims 1 and 7 above, and further in view of Suzuki (US Patent No. 5,270,775).

Claims 1-23 remain in this application.

Interview with the Examiner

Applicants gratefully acknowledge the opportunity to discuss the aspects of the present application with the Examiner. Applicants and the Examiner disagreed on the interpretation of the client computer directly communicating with both the DFE and document processing device in Sorkin. Applicants and the Examiner further disagreed on the server performing the functions of the DFE in Irie. Applicants proposed an amendment to claim 1, the entry of which was denied by the examiner as one that would have necessitated further search.

Claims 1-6 Distinguish over Sorkin and Irie

Claim 1 calls for among other elements a network interface controller in parallel communication with the document processing device and document processing device controller, for segregating the job data and the control data, and the document processing device controller for translating the job data into data format executable by the document processing device.

It is asserted in the Office Action that Sorkin discloses a network interface controller which segregates the job data and the control data. Applicants respectfully traverse.

Sorkin is directed to a network which includes a client computer, a spooler/network

server and a printer. Initially, the job request with the client address is generated by the client computer and transmitted to the spooler/server. The server transmits the job to the printer. Thereafter, the printer can communicate with the client computer directly. Sorkin does not show that the client is in operative communication with the server and the printer. Because of that, the server is used to receive and transmit both job data and control data until the communications with the printer are established. These are the very two functions that the present application is directed to segregating. As set forth in claim 1, an interface controller is in direct communication with the printer and employed to separate control data from the print job data and to re-route the control data directly to the document processing device. The data flow to the DFE is restricted to devote processing resources of the DFE only to the print job data translation operations.

Furthermore, after Sorkin establishes the communications between the client computer and the printer, the client computer sends both the print job data and control data to the printer's DFE. Sorkin does not show that the control data is being segregated from the print job by the network computer, processed by the network computer and sent directly to the document processing device bypassing the DFE; while the print job data is sent directly to the DFE. Sorkin sends both the print data and the control data to the DFE.

Irie describes a system which includes a printer server. The Examiner asserts that Irie's server is a DFE as known in the art. Applicants respectfully traverse. The Examiner refers Applicants to Col. 8, lines 47-49. The reference reads: "The printer server ... converts the print data." As known in the art of network printing architectures, there are different types of conversion that might be performed in the printing system. As described in detail in the present application, the DFE translates the print job, e.g. the PDL file, into the bit definitions recognizable by the document processing device. Irie does not show the translation of the job data as known in the art by the server, only some type of conversion. Moreover, with attention to Fig. 3 of Irie, a data analyzing/print data generating part 159, which belongs to the printer, examines whether the data is print data or other data. The print data is then converted into a data form that is suitable for printing. Therefore, the server of Irie is not a DFE as known in the art, i.e. the device for translating a PDL file into bits definition.

In summary, neither Sorkin, nor Irie, taken singularly or in combination, discloses or

suggests processing and communicating the control data directly to the document processing device while bypassing the device which translates the job data into the printer recognizable signals (DFE). If the Examiner sustains this assertion, the Applicants respectfully request the Examiner point out where exactly in the references such features are described.

It is therefore respectfully submitted that **claim 1 and dependent claims 2-6** distinguish patentably and unobviously over Sorkin and Irie.

Turning now to **claim 4**, an addition to its relationship with claim 1, claim 4 recites: the interface controller identifies object oriented rendering data within the job data. Neither Sorkin nor Irie, taken singularly or in combination, discloses or suggests identifying object oriented rendering data within the print job data stream. It is therefore respectfully submitted that **claim 4** distinguishes patentably and unobviously over Sorkin and Irie.

Claims 7-18 Distinguish over Sorkin and Irie

Claim 7 calls for among other elements: a network interface controller for distinguishing the remote communication signals as job data or control data; and a document processing device controller for translating the job data into a data format executable by the document processing device.

The arguments above to distinguish claim 1 are equally applicable to distinguish claim 7. **Sorkin** discloses a system, in which the network server, at least initially, performs two functions: (1) receives and transmits the control data and (2) receives and transmits the print job data. Furthermore, after Sorkin establishes the communications between the client computer and the printer, the client computer sends both print job data and control data to the printer's DFE. Further, Sorkin does not show that the server is capable of translating the job data into the format executable by the document processing device.

Irie does not show the server translate the print job data into data format executable by the document processing device. The print job data is translated by the data analyzing print data generating part located within the printer.

Neither Sorkin, nor Irie, taken singularly or in combination, discloses or suggests treating the device controller (DFE) and document processing device as peers in sending

the print job data for translating to the DFE and the control data to the document processing device directly and independently from the print job data communication flow.

It is therefore respectfully submitted that **claim 7 and dependent claims 8-18** distinguish patentably and unobviously over Sorkin and Irie.

Turning now to **claim 17**, in addition to its relationship to claim 7, claim 17 recites: object orientated rendering data distinguishes text, pictures and business graphics for enhancing document processing device operation. E.g., the control data includes specific instructions to distinguish text, pictures and graphics which instructions are used to interpret the bits information. Neither Sorkin, nor Irie, taken singularly or in combination, discloses or suggests that the control data includes instructions to distinguish text, pictures or business graphics for enhancing the document processing device operation, e.g. the control data includes instructions which tell the document processing device what to do with the bits information. It is therefore respectfully submitted that **claim 17 and dependent claim 18** distinguish patentably and unobviously over Sorkin and Irie.

Turning to **claim 18**, in addition to its relationship to claims 7 and 17, claim 18 recites: the object oriented rendering data comprises page description language data about a document to be made at the data processing device. Neither Sorkin, nor Irie, taken singularly or in combination, discloses or suggests that the control data includes the data about a document to be made which control data is used by the document processing device during printing. It is therefore respectfully submitted that **claim 18** distinguishes patentably and unobviously over Sorkin and Irie.

Claims 19-20 Distinguish over Sorkin and Irie

Claim 19 calls for among other elements: an intelligent interface network controller (iNIC) disposed intermediate the network and the DFE, and in parallel communication with the printer and the DFE. The arguments above to distinguish claims 1 and 7 are equally applicable to distinguish claim 19. In short, **Sorkin** describes a server which receives and transmits both job data and control data until the communications between a client computer and the printer are established. Sorkin does not show that the client is in parallel

communication with the server and the printer. The server is initially used to establish client's relationship with the printer. Moreover, claim 19 sets forth parallel communications between the network controller and each of the DFE and document processing device. Sorkin does not describe a DFE.

Irie does not show, either explicitly or inherently, a stand alone digital front end (DFE) for translating the job data into imaging signals recognizable by the printer as set forth in claim 19.

Neither Sorkin, nor Irie, taken singularly or in combination, discloses or suggests an iNIC in parallel communication with the printer and the DFE, wherein the DFE translates the print job data into imaging signals and is availed of the control data flow.

It is therefore respectfully submitted that **claim 19 and dependent claim 20** distinguish patentably and unobviously over Sorkin and Irie.

Claims 22-23 Distinguish over Sorkin and Irie

Claim 22 calls for among other elements: segregating, at the interface controller, the control data from the job data; communicating the control data directly to the document processing device and the job data to the DFE. The arguments above to distinguish claims 1, 7 and 19 are equally applicable to distinguish claim 22. **Sorkin** does not show that the interface controller segregates the control data from the job data, wherein the print job data is sent directly to the DFE and the control data is sent directly to the document processing device. Sorkin sends both the print data and the control data to the DFE, which is, as a best guess, included within the printer.

Irie does not disclose or suggest, either explicitly or inherently, a stand alone DFE for converting the job data into document processing signals recognizable by the document processing device.

Neither Sorkin, nor Irie, taken singularly or in combination, discloses or suggests communicating the control data directly to the document processing device and the print job data to the DFE, wherein the DFE converts the print job data into the document processing signals which are communicated to the document processing device.

It is therefore respectfully submitted that **claim 22 and dependent claim 23** distinguish patentably and unobviously over Sorkin and Irie.

CONCLUSION

For the reasons detailed above, it is submitted all claims remaining in the application **(Claims 1-23)** are now in condition for allowance. The foregoing comments do not require unnecessary additional search or examination.

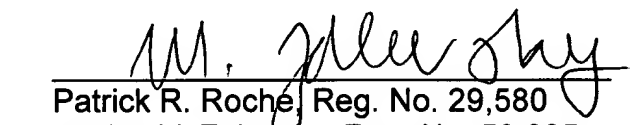
No additional fee is believed to be required for this Amendment C. However, the undersigned attorney of record hereby authorizes the charging of any necessary fees, other than the issue fee, to Xerox Deposit Account No. 24-0037.

In the event the Examiner considers personal contact advantageous to the disposition of this case, he/she is hereby authorized to call Marina V. Zalevsky, at Telephone Number (216) 861-5582.

Respectfully submitted,

FAY, SHARPE, FAGAN,
MINNICH & McKEE, LLP

8-30-05
Date



Patrick R. Roche, Reg. No. 29,580
Marina V. Zalevsky, Reg. No. 53,825
1100 Superior Avenue, 7th Floor
Cleveland, Ohio 44114-2579
(216) 861-5582

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